Solomon, Terrance Recvd 3/15/05 9:15a O.S.

From: Unknown@Unknown.com
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MyDate=Mon Mar 14 19:56:28 EST 2005

submitto=STIC-EIC3700@uspto.gov

Name=William Matthews

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Artunit=3738

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Serialnum=10809991

PatClass=128/898

Earliest=3/27/2000

Format1=paper

Searchtopic=see claims 1-17.

Comments=

send=SEND

8/3,K/1 (Item 1 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

12126022 Genuine Article#: 733BT No. References: 27
Title: Radio-frequency thermal ablation with hypertonic saline **solution**
injection **of the** lung : **ex vivo and in vivo feasibility studies**
Author(s): Lee JM (REPRINT) ; Youk JH; Kim YK; Han YM; Chung GH; Lee SY;
Kim CS
Corporate Source: Chonbuk Natl Univ,Dept Diagnost Radiol, Sch Med,Chonju//South Korea/ (REPRINT); Chonbuk Natl Univ,Dept Diagnost
Radiol, Sch Med,Chonju//South Korea/; Seoul Natl Univ Hosp,Dept Diagnost Radiol,Seoul 110744//South Korea/
Journal: EUROPEAN RADIOLOGY, 2003, V13, N11 (NOV), P2540-2547
ISSN: 0938-7994 Publication date: 20031100
Publisher: SPRINGER-VERLAG, 175 FIFTH AVE, NEW YORK, NY 10010 USA
Language: English Document Type: ARTICLE (ABSTRACT AVAILABLE)

Title: Radio-frequency thermal ablation with hypertonic saline **solution**
injection **of the** lung : **ex vivo and in vivo feasibility studies**
Abstract: The aim of this study was to assess the effects of simultaneous
instillation of NaCl solutions during **radio - frequency** ablation (RFA) on the dimension of the ablated lesion in ex vivo bovine lung
tissue and in vivo rabbit lung tissue. The RFA was induced in ex vivo
bovine lung tissue which was inflated with room air and in vivo rabbit
lung tissue by a 500-kHz **RF** generator and a 17-G cooled-tip electrode. In in vivo experiments, RFA was performed using CT guidance.
The **RF energy** was applied for 5 min with or without instillation of
0.9 or 36% NaCl solutions. The changes in tissue impedance, current,
power output, and...

...of tissue impedance (>100 Omega) and corresponding increase of current
flow occurred in both ex vivo and in vivo studies. This experimental
study demonstrates that **RF** ablation with simultaneous NaCl solution
infusion of the lung is more effective in achieving coagulation necrosis than conventional RFA procedure.

17/3,K/1 (Item 1 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

13518249 Genuine Article#: 890JQ No. References: 32
Title: Complications after percutaneous saline **-enhanced radiofrequency**
ablation of liver tumors: 3-year experience with 336 patients at a single center
Author(s): Giorgio A; Tarantino L; de Stefano G; Coppola C; Ferraioli G
(REPRINT)
Corporate Source: Viale Marconi 41/I-84013 Cava Tirreni/SA/Italy/ (REPRINT)
; D Cotugno Hosp,Intervent Ultrasound Serv,I-80131 Naples//Italy/(ferraiol@tin.it)
Journal: AMERICAN JOURNAL OF ROENTGENOLOGY, 2005, V184, N1 (JAN), P207-211
ISSN: 0361-803X Publication date: 20050100
Publisher: AMER ROENTGEN RAY SOC, 1891 PRESTON WHITE DR, SUBSCRIPTION FULFILLMENT, RESTON, VA 22091 USA
Language: English Document Type: ARTICLE (ABSTRACT AVAILABLE)

Title: Complications after percutaneous saline **-enhanced radiofrequency**
ablation of liver tumors: 3-year experience with 336 patients at a single center
Abstract: OBJECTIVE. Our objective was to report the complications that
occurred in a large series of patients with primary or metastatic liver
tumors treated with percutaneous **saline** -enhanced radiofrequency
ablation under sonographic guidance at a single center during 3 years
of experience.

SUBJECTS AND METHODS. Between September 2000 and October 2003, 336
...

...institution using radiofrequency ablation. Of these patients, 287 had
hepatocellular carcinoma from cirrhosis, 47 had liver metastases (38
from colon, six from breast, two from **lung** , and one from cutaneous
melanoma), and two had primary cholangiocarcinoma. Adverse events
related to radiofrequency ablation were prospectively recorded.

RESULTS. The number of sessions performed...
...Identifiers--SMALL HEPATOCELLULAR-CARCINOMA; UNRESECTABLE HEPATIC-TUMORS; TISSUE **ABLATION** ; **THERMAL ABLATION** ; ETHANOL **INJECTION** ; METASTASES; ELECTRODE; NEEDLE; TEMPERATURE; MANAGEMENT

17/3,K/2 (Item 2 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

10491044 Genuine Article#: 534UC No. References: 19
Title: The patient with cancer: Management through a pinhole
Author(s): Adam A (REPRINT)
Corporate Source: St Thomas Hosp,Dept Radiol,1st Floor Lambeth Wing,Lambeth
Palace Rd/London SE1 7EH//England/ (REPRINT); Univ London,Guys Kings &
St Thomas Med Sch, Dept Radiol,London WC1E 7HU//England/
Journal: DRUGS OF TODAY, 2002, V38, A, P49-59
ISSN: 0025-7656 Publication date: 20020000
Publisher: PROUS SCIENCE, SA, PO BOX 540, PROVENZA 388, 08025 BARCELONA,
SPAIN
Language: English Document Type: ARTICLE (ABSTRACT AVAILABLE)

...Abstract: natural orifices can improve the quality of life of patients
with malignancy, and may offer the prospect of cure. Interventional
radiological procedures include drainage of **fluid** collection, venous
access techniques for chemotherapy and intravenous feeding, neurolysis,
intra-arterial infusion chemotherapy, embolization, tumor ablation and
the use of metallic stents in various...

...relief of obstruction of the gastric outlet and colon. Many patients
with spinal metastases have severe pain, which can be difficult to
control. The percutaneous **injection** of methyl methacrylate under
combined fluoroscopic and CT guidance stabilizes the involved vertebra,
preventing further collapse and offering excellent pain relief in
approximately 80% of patients. Chemoembolization has made a
contribution to the management of patients with hepatocellular
carcinoma but appears less effective in metastatic disease. Methods of
percutaneous **ablation** include cryotherapy, and **thermal ablation**
with laser and radiofrequency. Percutaneous techniques are usually
carded out under CT, ultrasound or MRI guidance. The initial results
are encouraging and further technical refinements...
...Identifiers--PERCUTANEOUS ETHANOL **INJECTION** ; EXPANDABLE METALLIC
STENTS; HEPATOCELLULAR-CARCINOMA; LIVER-TUMORS; TRACHEOBRONCHIAL TREE;
ESOPHAGEAL-CARCINOMA; **LUNG** -CANCER; OBSTRUCTION; PLACEMENT;

ABLATION

17/3,K/3 (Item 3 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

08369473 Genuine Article#: 277RA No. References: 30
Title: Treatment of VX2 liver tumor in rabbits with ''wet'' electrode mediated radio-frequency ablation
Author(s): Miao Y; Ni Y (REPRINT) ; Mulier S; Yu J; DeWever I; Penninckx F;
Baert AL; Marchal G
Corporate Source: KATHOLIEKE UNIV LEUVEN HOSP,DEPT RADIOL, HERESTRAAT 49/B-3000 LOUVAIN//BELGIUM/ (REPRINT); KATHOLIEKE UNIV LEUVEN HOSP,DEPT
RADIOL/B-3000 LOUVAIN//BELGIUM/; KATHOLIEKE UNIV LEUVEN HOSP,DEPT SURG/B-3000 LOUVAIN//BELGIUM/; KATHOLIEKE UNIV LEUVEN HOSP,DEPT PATHOL/B-3000 LOUVAIN//BELGIUM/; NANJING MED UNIV,DEPT ABDOMINAL SURG/NANJING//PEOPLES R CHINA/
Journal: EUROPEAN RADIOLOGY, 2000, V10, N1, P188-194
ISSN: 0938-7994 Publication date: 20000000
Publisher: SPRINGER VERLAG, 175 FIFTH AVE, NEW YORK, NY 10010
Language: English Document Type: ARTICLE (ABSTRACT AVAILABLE)

Abstract: Radio-frequency ablation (RFA) has been considered as an alternative therapy for liver tumors. A ''wet'' electrode with interstitial infusion of hypertonic **saline** was tested for the RFA of liver tumor in rabbits. Seventy-eight liver tumors (circle divide 1.5 to 3.0 cm) were induced in 41 rabbits by VX2 carcinoma implantation.
Fifty-one tumors in 27 rabbits were treated with RFA. Under Laparotomy, the RF energy was delivered while 5% **saline** was infused through the electrode into the tumor at 1 ml/min. Six rabbits with 12 tumors were treated with only intratumoral 5% **saline** infusion without RFA.
Another 8 rabbits with 15 tumors received sham operation as untreated controls. The efficacy of the therapy was evaluated with survival rate
...

...found free of viable tumor at the moment when they were sacrificed (relative eradication rate 44.4%); 9 rabbits showed local tumor relapse and/or **lung** metastasis 2-10 weeks after ablation (re-current current rate 33.3 %). In control groups of **saline** infusion and sham operation, all 14 rabbits died within 3 months (mortality rate 100%).

Three-month survival rates between RFA group and control groups were...
...Identifiers--RADIOFREQUENCY TISSUE ABLATION; PERCUTANEOUS ETHANOL **INJECTION** ; INTENSITY FOCUSED ULTRASOUND; LASER-INDUCED THERMOTHERAPY;
HEPATOCELLULAR-CARCINOMA; **THERMAL ABLATION** ; NEEDLE ELECTRODE; METASTASES; THERAPY; CANCER

17/3,K/4 (Item 4 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

06843948 Genuine Article#: ZW093 No. References: 25
Title: Contrast enhancing agents in ultrasonography: Clinical applications
Author(s): Campani R (REPRINT) ; Calliada F; Bottinelli O; Bozzini A; Sommaruga MG; Draghi F; Anguissola R
Corporate Source: UNIV HOSP,IRCCS, POLICLIN SAN MATTEO, INST RADIOL, P GOLGI 2/I-27100 PAVIA//ITALY/ (REPRINT)
Journal: EUROPEAN JOURNAL OF RADIOLOGY, 1998, V27, 2 (MAY), PS161-S170
ISSN: 0720-048X Publication date: 19980500
Publisher: ELSEVIER SCI IRELAND LTD, CUSTOMER RELATIONS MANAGER, BAY 15, SHANNON INDUSTRIAL ESTATE CO, CLARE, IRELAND
Language: English Document Type: ARTICLE (ABSTRACT AVAILABLE)

...Abstract: pericardium, peritoneum and so on) ones. Echocontrast agents can: (1) create or improve an acoustic window; (2) distend some organs and fill them with a **liquid** , with homogenous attenuation of the ultrasound beam; (3) displace the air-containing intestinal loops; (4) depict the walls, the shape and the contours of a normal or abnormal cavity; (5) detect abnormal communications, fistulas and drainages; and (6) evaluate the amount of **fluid** in the pleural, pericardial or peritoneal cavities. As for vascular applications, this domain sees the highest number of echocontrast agents on trial or on the...
...and the vascularity of upper and especially lower limbs of renal vessels. Tumor macrovascularity (and in the future, hopefully microvascularity) can also be studied in **parenchymatous** and/or glandular organs, as well as in intra- and extra-abdominal **parenchymatous** organs in the periskeletal soft tissues. Clinical validation has also been obtained in the follow-up of tumors submitted to **ablation** therapy (chemoembolization, ethanol **injection** , **thermal ablation**) and in echocardiography, both for morphological studies in

the cardiac cavities and for the cardiac wall perfusion.

Conclusions:

In a subgroup of 513 out of...

?

37/3,K/3 (Item 1 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0009560002 BIOSIS NO.: 199598027835
Lung tissue may be injured when radiofrequency energy **catheter** ablation **is performed on the free atrial wall**
AUTHOR: Kongsgaard E (Reprint); Foerster A; Aass H; Madsen S; Amile J P
AUTHOR ADDRESS: Inst. Surgical Res., Dep. Pathol., Rikshospitalet, Oslo, Norway**Norway
JOURNAL: European Heart Journal 15 (ABSTR. SUPPL.): p387 1994 1994
CONFERENCE/MEETING: Joint XIIth World Congress of Cardiology and the XVIth Congress of the European Society of Cardiology Berlin, Germany September 10-14, 1994; 19940910
ISSN: 0195-668X
DOCUMENT TYPE: Meeting; Meeting Abstract; Meeting Poster
RECORD TYPE: Citation
LANGUAGE: English

Lung tissue may be injured when radiofrequency energy **catheter** ablation **is performed on the free atrial wall**
DESCRIPTORS:

17/3/1 (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX

014844953 **Image available**
WPI Acc No: 2002-665659/200271
Related WPI Acc No: 1998-557204; 1999-419226; 1999-457984; 2000-105837; 2001-015541; 2001-060736; 2001-159342; 2001-243621; 2001-564303
XRPX Acc No: N02-526627

Asthma **treatment involves application of energy from e.g.** RF **energy source to airway wall of** lung **such that diameter of airway is increased**

Patent Assignee: BRONCUS TECHNOLOGIES INC (BRON-N); DANEK C J (DANE-I); KEAST T (KEAS-I); LAUFER M D (LAUF-I); LOOMAS B (LOOM-I)
Inventor: **DANEK C J** ; KEAST T; **LAUFER M D** ; **LOOMAS B**
Number of Countries: 003 Number of Patents: 003
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20020091379	A1	20020711	US 99296040	A	19990421	200271 B
			US 99436455	A	19991108	
			US 2000535856	A	20000327	
			US 2001999851	A	20011025	
CA 2400276	A1	20030425	CA 2400276	A	20020919	200333
AU 2002301390	A1	20030612	AU 2002301390	A	20021004	200455

Priority Applications (No Type Date): US 2001999851 A 20011025; US 99296040 A 19990421; US 99436455 A 19991108; US 2000535856 A 20000327
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20020091379	A1		9	A61B-018/18	CIP of application US 99296040
					CIP of application US 99436455
					CIP of application US 2000535856
CA 2400276	A1	E		A61B-018/04	
AU 2002301390	A1			A61B-018/08	

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File 347:JAPIO Nov 1976-2004/Nov(Updated 050309)
         (c) 2005 JPO & JAPIO
File 350:Derwent WPIX 1963-2005/UD,UM &UP=200519
         (c) 2005  Thomson Derwent

Set     Items   Description
S1          7   AU='DANEK C J'
S2          9   AU='BIGGS M'
S3         27   AU='LOOMAS B'
S4         42   AU='LAUFER M D'
S5         26   AU='KAPLAN G'
S6          1   AU='SHRINER K'
S7         88   S1:S6
S8      51298   LUNG? ? OR ASTHMA? OR PULMON?
S9       8332   EPITHEL?
S10         0   PARYNCHYMA?
S11       921   PARENCHYMA?
S12        28   S7 AND S8
S13      9204   S9 OR S11
S14         3   S12 AND S13
S15   3098503   TEMPERATUR? OR HEAT?? OR RADIO?(3N)ENERGY OR RF
S16        12   S12 AND S15
S17        11   S16 NOT S14
S18      8396   S8 AND S15
S19       317   S13 AND S18
S20       316   S19 NOT S7
S21   3495090   REDUC? OR STABILIZ? OR STABILIS?
S22    417111   S21(S)S15
S23        41   S20 AND S22
S24    731936   FLUID? ? OR SALINE? ?
S25        13   S23 AND S24
S26   1569240   TREAT????
S27       288   S20 AND S26
S28    141735   (CONTROL???? OR S21)(3N)TEMPERATUR?
S29         1   S27 AND S28
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File   2:INSPEC 1969-2005/Apr W1
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         (c) 2005 ProQuest Info&Learning
File 441:ESPICOM Pharm&Med DEVICE NEWS 2005/Feb W3
         (c) 2005 ESPICOM Bus.Intell.

Set     Items   Description
S1    2124076   INJECT?
S2    4994401   FLUID? OR SALINE? OR LIQUID?
S3    2033433   LUNG? ? OR AIRWAY OR AIR()WAY OR PARENCHYMA?
S4        863   S1(5N)S2(5N)S3
S5      35469   (RF OR RFE OR RADIOFREQUENC? OR RADIO()FREQUENCY)(S)
ENERGY
S6    5861946   TEMPERATUR?
S7          3   S4 AND S5
S8          1   RD (unique items)
S9       7065   THERMAL?(5N)ABLAT?
S10     15672   S1 AND S2 AND S3
S11     97427   S1(5N)S2
S12      3255   S11(S)S3
S13         3   S5 AND S12
S14        10   S10 AND S9
S15        10   S13 OR S14
S16         5   RD (unique items)
S17         4   S16 NOT S7
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? show files;ds
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         (c) 2005 Elsevier Science B.V.
File 155:MEDLINE(R) 1951-2005/Mar W4
         (c) format only 2005 The Dialog Corp.
File  94:JICST-EPlus 1985-2005/Feb W2
         (c)2005 Japan Science and Tech Corp(JST)
File 144:Pascal 1973-2005/Mar W3
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         (c) 2005 ProQuest Info&Learning
File 441:ESPICOM Pharm&Med DEVICE NEWS 2005/Feb W2
         (c) 2005 ESPICOM Bus.Intell.

Set     Items   Description
S1    1716480   LUNG? ?
S2     339190   AIRWAY? OR AIR()WAY? ?
S3    7492644   TEMPERATUR? OR HEAT???
S4    4861998   ENERGY OR RADIO()FREQUENCY OR RF
S5   17345504   CONTROL???? OR REDUC??? OR STABILIS? OR STABILIZ?
S6    2732806   SALINE? OR FLUID?
S7   15599021   TREAT???? OR THERAP?
S8    1932270   S1 OR S2
S9     676977   S7 AND S8
S10   1055708   S5(S)S3
S11     69953   S6 AND S10
S12       584   S9 AND S11
S13     77411   INJECT?(5N)S6
S14      2829   S13(S)S8
S15        32   S7 AND S10 AND S14
S16        12   RD (unique items)
S17    214032   ABLAT???
S18   2279475   THERMAL?
S19     14813   (S3 OR S18)(5N)S17
S20      2967   S4(S)S19
S21       144   S6 AND S7 AND S20
S22       142   S21 NOT S15
S23        73   RD (unique items)
S24   3872011   PY=2001
S25   4045477   PY=2002
S26   4256558   PY=2003
S27   3939050   PY=2004
S28    499456   PY=2005
S29        38   S23 NOT S24:S28
S30        48   S14(S)S10
S31        18   RD (unique items)
S32         7   S31 NOT S15
S33      8573   S4(3N)S17
S34       158   S8(S)S33
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S35        133   S7 AND S34
S36         27   S35 NOT S24:S28
S37         15   RD (unique items)
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Howie

(FILE 'HOME' ENTERED AT 15:19:21 ON 11 APR 2005)

FILE 'HCAPLUS, MEDICONF' ENTERED AT 15:19:35 ON 11 APR 2005

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L3           145 S THERMAL?()ABLAT?
L4           965 S (RF OR RFE OR RADIOFREQUENC? OR
RADIO()FREQUENCY)(4W)ENERGY
L5             0 S L2 AND L3
L6             0 S L2 AND L4
L7             0 S L1 AND L3
L8             0 S L1 AND L4
L9             0 S L3 AND L4
L10           69 S L2 AND PY<2002
L11            0 S L10 AND L4
L12       584144 S TEMPERATUR?
L13            1 S L10 AND L12
L14       542784 S FLUID# OR SALINE#
L15       210620 S LUNG# OR AIRWAY# OR AIR()WAY# OR PARENCHYMA#
L16            2 S L14(S)S15
L17        16437 S L14 AND L15
L18         2694 S INJECT? AND L17
L19            0 S L4 AND L18
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John Sims EIC 3700 ext 23507